Joint Rapid Scenario Generation (JRSG)

U.S. Joint Forces Command is performing *market research* from industry and academia on the ability to provide an integrated, web-based capability that joint, service and other Department of Defense (DoD) agencies will utilize to rapidly produce event-ready initialization data sets supporting scenario generation. This capability is called Joint Rapid Scenario Generation.

<u>DEADLINE</u>: All submissions must be received by close of business **May 1, 2007**.

Problem Statement:

Joint warfighters lack a rapid, distributed capability to create mission-driven scenarios, event-ready data sets to support experimentation, acquisition, testing, analysis, training, and mission planning and rehearsal.

The problem is to find the right data among numerous, competing sources, creating a single set of scenario data and providing it to end users in the right format within mission-driven time constraints. Some of the issues that drive our needs are:

- Cannot rapidly create coherent, integrated initialization data-sets for mission-driven scenarios
- Fielded capabilities are labor intensive, redundant, segmented, and costly
- No enterprise approach to optimize current efforts
- Multiple sources of data often use different formats and often contain conflicting data.
- It is technically difficult and labor intensive to find and translate the data the end-users need from the various, competing sources into a set of products in which there are single values for each variable to be represented in the scenario and across the systems networked for the event.
- It is technically difficult and labor intensive to translate data into the multiple formats
 used by the various systems, selected by end-users performing experimentation,
 acquisition, testing, analysis, training, and mission planning and rehearsal utilizing
 modeling and simulation (M&S), command and control (C2), and information systems
 (IS) in live, virtual and constructive (LVC) environments.

What is JRSG?

Joint Rapid Scenario Generation (JRSG) is a program designed to rapidly produce scenario-driven, mission-relevant, event-ready data-sets. It should contain:

• Simulation-ready data - a file(s) containing data that is consumable by a simulation with no additional interpretation or translation. A simulation should be able to import

the file without any errors (data going to the wrong field) or loss of data. A simulation-ready database/file does not have to be the entire database to enable a simulation, C2 or other information system to work. The database builder may have more work to do to make it an event-ready database.

- Event-ready data a complete simulation or C2 database that is ready to support an event. No further database preparation is necessary. The simulation/C2 system is ready for the event.
- Mission-relevant data A mission-relevant database is a scenario to support a
 particular use case. Note, however, that a scenario can potentially support many
 missions/use cases. A scenario that is ready to support an event is an event-ready
 database.
- Scenario in the context of JRSG, a scenario is a database or data file(s) used by a simulation, simulator, C2 or other information system to support some event or activity (any of the use cases).

Key points on JRSG

JRSG is not a simulation or C2 system. It is an enterprise approach to implement integrated technologies, standards, architectures, and processes built around an operational requirement. It aims to provide ready-to-use data for experimentation, acquisition, testing, analysis, training, and mission planning and rehearsal events.

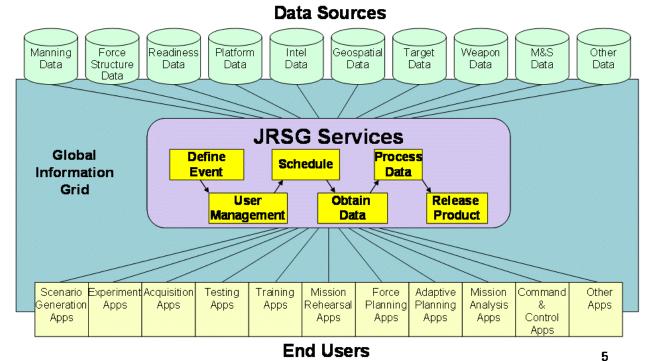
JRSG is intended to enable joint, service and other Department of Defense (DoD) organizations to rapidly produce mission relevant event-ready data sets supporting scenario generation for experimentation, acquisition, testing, analysis, training, and mission planning and rehearsal utilizing modeling and simulation (M&S), command and control (C2), and information systems (IS) in live, virtual and constructive (LVC) environments.

Capabilities developed within JRSG will support a wide variety of automated and manual information systems, mission rehearsal systems, planning systems, and other M&S and C2 systems. This capability is not designed to replace those systems but rather to provide consistent correlated data across numerous systems.

JRSG Mission Needs

- Increase fidelity/realism of C2 and simulation data to support exercise, rehearsal and operational mission planning for joint force operations.
- Reduce conflicting situational awareness for mission planning/execution by establishing a relevant and authoritative source of data and its representation at all appropriate echelons (tactical to operational level).

- Enhance common situational awareness, including disposition of red, blue and grey/white forces, to improve mission effectiveness while reducing the potential for fratricide.
- Increase rapid scenario generation capability enabling adaptive planning, testing, training, and mission rehearsal exercises to respond in an agile manner to the rapidly changing operational needs.



Notional JRSG Capability

Submission Criteria

<u>DEADLINE</u>: All submissions must be received by close of business **May 1, 2007**. This short suspense is due to review requirements.

USJFCOM is looking for response in any form, from white papers, PowerPoint capability and marketing briefs, to short outlines. The point is to provide us will sufficient information so that we can determine whether further discussion is warranted.

Please forward your unclassified submissions electronically to: tech.transfer@jfcom.mil. In the subject line please state: JRSG Submission – Your title

Ensure all pages are labeled with your contact information, and any required statement regarding proprietary content of your document.

Any questions must be submitted electronically to the following address: tech.transfer@jfcom.mil. Please title subject line: *JRSG Question*. All questions will be answered to the best of our ability as rapidly as possible.

Please listen to the accompanying audio pod cast for clarifying information and general Q&A's.